

Prajvala Kurtakoti

CONTACT INFORMATION	www.prajvalakurtakoti.com	prajvala.kurtakoti@gmail.com
RESEARCH INTERESTS	Arctic Ocean/Air/Sea-ice Interaction, Meridional Heat Transport, Southern Ocean Circulation, Weddell Sea Polynya, High-latitude Ocean-Bathymetry Interaction	
PROFESSIONAL EXPERIENCE	Dr. George S. Benton Postdoctoral Fellow June 2023 - Current Morton K. Blaustein Department of Earth and Planetary Sciences Johns Hopkins University	
	CNLS Postdoctoral Fellow October 2019 - February 2023 Center for Nonlinear Studies Los Alamos National Laboratory	
EDUCATION	Department of Oceanography Texas A&M University, College Station, TX, USA	
	PhD. , Oceanography 2019	
	<ul style="list-style-type: none">Thesis: <i>Preconditioning, formation, and impact of Maud Rise and Weddell Sea Polynyas in a High-Resolution Earth System Model</i> Advisor: Achim Stoessel, Ph.D	
	Department of Physics and Physical Oceanography Memorial University of Newfoundland, St. John's, NL, Canada	
	M.Sc. , Physical Oceanography 2014	
	<ul style="list-style-type: none">Thesis: <i>Study of the energetics of transmitted and reflected internal waves using laboratory experiments.</i> Advisor: James Munroe, Ph.D	
	Amrita School of Engineering Amrita Vishwa Vidyapeetham, Bangalore, KA, India	
	B.Tech. , Computer Science and Engineering 2008	
RESEARCH EXPERIENCE	Graduate Research Assistant May 2017 - December 2017 February 2016 - August 2016	
	Los Alamos National Laboratory, Los Alamos, NM.	
	<ul style="list-style-type: none">Study the formation mechanisms of open ocean convection influenced by bathymetric effects in the Southern Ocean.	
	Graduate Research Assistant April 2015 - August 2015	
	Department of Oceanography, TAMU, College Station, TX.	
	<ul style="list-style-type: none">Analyzing Hypoxia conditions in the Gulf of Mexico present during the summer months (2010-2013) using in-situ CTD observations.	
	Project Assistant June 2008 - August 2011	
	Centre for Atmospheric and Oceanic Sciences Indian Institute of Science, Bengaluru, Karnataka, India.	
	<ul style="list-style-type: none">I worked on a project to study the diurnal to Inter-annual Variability of Tropical Indian Ocean and Asian Monsoon. I examined the co-evolution of Atmospheric and Oceanic intra-seasonal variability during Indian Summer Monsoon season using observational and model data.Oceanographic Fieldwork: I participated in a 20 day cruise on the O.R.V. Sagar Kanya, a deep-sea ocean research vessel, as part of a multi-year study of the response of the upper ocean to tropical cyclones in the Bay of Bengal.	

JOURNAL
PUBLICATIONS

1. Kurtakoti, P., Weijer, W., Veneziani, M., Rasch, P., Verma, T. “Sea ice and Cloud Mediating Compensation between Poleward Atmospheric and Oceanic Heat Transports across the CMIP6 Pre-industrial Control Simulations” *Journal of Climate in revision* (2023).
2. Weijer, W., Haine T.W.N., Siddiqui A.H., Cheng W., Veneziani M., and Kurtakoti P. 2022. “Interactions between the Arctic Mediterranean and the Atlantic Meridional Overturning Circulation: A review”. *Oceanography* 35(3-4):118-127.
3. Kurtakoti, P, Veneziani, M, Stoessel, A, Weijer, W, Maltrud, M. “On the Generation of Weddell Sea Polynyas in a High-Resolution Earth System Model.” *Journal of Climate* 34.7 (2021): 2491-2510
4. Kurtakoti, P, Veneziani, M, Stoessel, A, Weijer, W. “Preconditioning and Formation of Maud Rise Polynyas in a High-Resolution Earth System Model.” *Journal of Climate* 31.23 (2018): 9659-9678.
5. Pandey, V. K, Kurtakoti, P. “Evaluation of GODAS using RAMA Mooring Observations from the Indian Ocean.”, *Marine Geodesy* 37.1 (2014): 14-31.

SCIENTIFIC
VISUALIZATIONS

1. Abram, G., Petersen, M., Samsel, F., Zeller, S., Conlon, L., Kurtakoti, P., Palmstrom, L., Patchett, J., and Roberts, A. “Polar Physics Revealed through Visualization of the E3SM Global Climate Model” Scientific Visualization and Data Analytics Showcase (SciViz), November 14-19, 2021. [link: CONFERENCE PAPER](#), [link: ANIMATION](#)

CONFERENCE
PRESENTATIONS

1. Kurtakoti, P., Weijer, W., Veneziani, M., Rasch, P., Verma, T. “Sea ice and Cloud Mediating Compensation between Poleward Atmospheric and Oceanic Heat Transports across the CMIP6 Pre-industrial Control Simulations” *NOAA’s 47th Climate Diagnostics and Prediction Workshop, Logan, Utah, October 25-27, 2022*
2. Kurtakoti, P., Weijer, W., Veneziani, M., Rasch, P., Verma, T., “Compensation between Poleward Atmospheric and Oceanic Heat Transports in CMIP6 Climate Simulations”, *Ocean Sciences Meeting 2022 Virtual Meeting*, February 24-March 04 , 2022.
3. Kurtakoti, P., Weijer, W., Veneziani, M., “Mechanism of Bjerknes Compensation in CMIP6 experiments”, *16th Conference on Polar Meteorology and Oceanography Virtual Meeting*, June 01-04, 2021.
4. Kurtakoti, P., Weijer, W., Veneziani, M., “Bjerknes Compensation in Poleward Atmospheric and Oceanic Heat Transports in CMIP6 Climate Simulations”, *2021 LANL / Arizona Days Conference, LANL, May 17-18, 2021*.
5. Kurtakoti, P., Veneziani, M., Stoessel, A, Weijer, W., Maltrud, M. “Propagation of Open-Ocean Convection in the Weddell Sea in a High-Resolution Earth System Model” *15th conference on Polar Meteorology and Oceanography-AMS, Boulder, Colorado*, May 19-23, 2019.
6. Kurtakoti, P., Veneziani, M, Stoessel, A, Weijer, W. “Preconditioning and formation mechanisms of Maud Rise (open ocean) Polynyas in a high-resolution CESM” *22nd Annual CESM Workshop, Boulder, Colorado*, June 19-22, 2017.
7. Kurtakoti, P., Munroe, J. “Propagating and reflecting mode-1 internal waves analyzed using the Hilbert transform” *66th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Pittsburgh, Pennsylvania*, November 23-26, 2013.

- SELECTED/INVITED TALKS
1. Kurtakoti, P., Veneziani, M., Stoessel, A., Weijer, W., Maltrud, M. “Preconditioning, Formation and Impact of Weddell Sea Polynya in a High-Resolution Earth System Model” Physical Oceanography Dissertation Symposium (PODS) 10’th meeting, Kona, Hawai’i, October 21-25, 2018.
 2. Kurtakoti, P. “A career in Physical Oceanography”, Northern New Mexico College, Española, New Mexico, April 21, 2022.
- CONFERENCE POSTERS
1. Kurtakoti, P., Weijer, W., Veneziani, M., Rasch, P., and Verma, T. “Bjerknes Compensation between Poleward Atmospheric and Oceanic Heat Transports in CMIP6 Climate Simulations” *Multi-annual to Decadal Climate Predictability in the North Atlantic-Arctic Sector*, September 20-22, 2021.
 2. Kurtakoti, P., Veneziani, M., Stoessel, A., Weijer, W. and Maltrud, M. “Open-Ocean Convection in the Weddell Sea in a High-Resolution Earth System Model” *Ocean Sciences Meeting, San Diego, California*, February 16-21, 2020.
 3. Kurtakoti, P., Veneziani, M., Stoessel, A. and Weijer, W. “Great Weddell Sea Polynyas: Mechanisms for their Genesis and Cessation in a High-Resolution Earth System Model” *Ocean Sciences Meeting, Portland, Oregon*, February 11-16, 2018.
 4. Kurtakoti, P., Veneziani, M., Stoessel, A. and Weijer, W. “Preconditioning and Formation Mechanisms of Maud Rise (Open Ocean) Polynyas in a High-Resolution CESM Simulation” *AGU Fall Meeting, San Francisco, California*, December 12-16, 2016.
- PROFESSIONAL DEVELOPMENT
1. Pattullo Conference 2019, September 22-25, 2019, Warrenton, VA.
 2. Physical Oceanography Dissertation Symposium, October 21-25, 2018, Kona, Hawai’i.
 3. Python for Scientists and Engineers, Enthought tutorial, October 2-6, 2017, Los Alamos, NM.
 4. 2015 Community Earth System Model (CESM) Tutorial, August 8-14, 2015, National Center for Atmospheric Research, Mesa Lab, Boulder, CO.
- TEACHING EXPERIENCE
- OCNG 252 – Introduction to Oceanography Spring 2019, 2017; Fall 2015, 2016
 GEOS-405 – Environmental Geosciences Fall 2018
 Department of Oceanography
 Texas A&M University
- Physics 1051 – General Physics LAB Fall 2011 - Spring 2014
 Physics 1020 – General Physics LAB
 Department of Physics and Physical Oceanography
 Memorial University of Newfoundland
- COMPUTING SKILLS
- Earth System Model
 Energy Exascale Earth System Model (E3SM)
 Computer Programming
 Python C, C++, Java, FORTRAN, UNIX shell scripting, and others
 Mathematical Tools
 Python, Paraview, Ferret, NCL, Solidworks , and others

STEM MENTORING EXPERIENCE	<p>WISE Program Mentor Women In Science and Engineering, NL, Canada Duties: Mentored high-achieving young high school female students who are interested in pursuing education and careers in STEM fields.</p> <p>SHAD Valley Workshop Shad Valley International, NL, Canada Duties: Organized a Science workshop for Shad Valley. It is a Canadian summer enrichment program for gifted high school students.</p>	<p>Summer 2012, 2013</p> <p>Summer 2012, 2013</p>
GRANTS	<p>U.S. Department of Energy through LANL/LDRD Program and the Center for Non Linear Studies. Los Alamos National Laboratory, NM, USA Center for Space and Earth Science (CSES) Los Alamos National Laboratory, NM, USA</p>	<p>Oct. 2019 - Oct. 2022</p> <p>2016 - 2018</p>
SCHOLARSHIPS	<p>SHARP Scholarship Robert O. Reid Oceanography Fellowship SHARP Scholarship Texas A&M University, College Station, TX, USA</p> <p>SGS Scholarship Memorial University of Newfoundland, St. John's, NL, Canada</p>	<p>Fall 2018, Fall 2017 Fall 2016 Fall 2014</p> <p>Fall 2011 - Fall 2014</p>